

Preface

This volume contains the joint final proceedings of the *8th, 9th, and 10th International Workshop on Verification of Infinite-State Systems* (INFINITY'06–08). The workshops were held

- in Bonn, Germany on August 26, 2006, chaired by A. Bouajjani from LIAFA, Université Paris Diderot—Paris 7, Paris, France,
- in Lisbon, Portugal on September 8, 2007, chaired by P. Madhusudan from University of Illinois at Urbana-Champaign, Urbana, Illinois, USA and V. Kahlon from NEC Labs, Princeton, NJ, USA, and
- in Toronto, Canada on August 23, 2008, chaired by P. Habermehl from LSV, École Normale Supérieure de Cachan and LIAFA, Université Paris Diderot—Paris 7, France and T. Vojnar from FIT, Brno University of Technology, Czech Republic.

In all three cases, INFINITY was held as a satellite event to the *International Conference on Concurrency Theory* (CONCUR'06–08).

The aim of the INFINITY workshop is to provide a forum for researchers interested in the development of formal methods and algorithmic techniques for the analysis of systems with infinitely many states, and their application in automated verification of complex software and hardware systems.

The program committee of INFINITY'06 consisted of

- Parosh Aziz Abdulla, University of Uppsala, Sweden;
- Bernard Boigelot, University of Liège, Belgium;
- Ahmed Bouajjani (chair), LIAFA, Université Paris Diderot—Paris 7, France;
- Silvano Dal Zilio, LIF, CNRS Marseille, France;
- Radu Iosif, Verimag, CNRS Grenoble, France;
- Richard Mayr, North Carolina State University, USA;
- Markus Müller-Olm, University of Münster, Germany;
- Kedar Namjoshi, Bell Labs, Murray Hill, NJ, USA;
- Jean-Francois Raskin, Université Libre de Bruxelles, Belgium;
- Stefan Schwoon, University of Stuttgart, Germany;

- Tomáš Vojnar, Technical University of Brno, Czech Republic.

The program committee of INFINITY'07 consisted of

- Thomas Colcombet, IRISA, Rennes, France;
- Javier Esparza, University of Stuttgart, Stuttgart, Germany;
- Christof Löding, RWTH, Aachen, Germany;
- Vineet Kahlon (co-chair), NEC-Labs, Princeton, USA;
- Narayan Kumar, Chennai Mathematical Institute, Chennai, India;
- P. Madhusudan (co-chair), University of Illinois, Urbana-Champaign, USA;
- Jiří Srba, University of Aalborg, Aalborg, Denmark.

The program committee of INFINITY'08 consisted of

- Christel Baier, TU Dresden, Germany;
- Bernard Boigelot, University of Liège, Belgium;
- Luca de Alfaro, University of California, Santa Cruz, CA, USA;
- Dino Distefano, Queen Mary, University of London, UK;
- Javier Esparza, TU Munich, Germany;
- Peter Habermehl (co-chair), LSV ENS Cachan/CNRS/INRIA and LIAFA, Université Paris Diderot—Paris 7/CNRS, France;
- Radu Iosif, VERIMAG, Université Joseph Fourier/INPG/CNRS, Grenoble, France;
- Anca Muscholl, LaBRI, Université Bordeaux 1/CNRS, France;
- Jiří Srba, BRICS, University of Aalborg, Denmark;
- Stavros Tripakis, Cadence Research Laboratories, Berkeley, CA, USA;
- Tomáš Vojnar (co-chair), Brno University of Technology, Czech Republic.

Each paper was refereed by three reviewers. The papers were refereed by the program committee members and by external referees appointed by them (in particular, in the case of Infinity'08, the external referees were Didier Lime, Morten Kühnrich, and Lukáš Holík), whose help is gratefully acknowledged.

The invited talks at the respective workshops were

- Infinity'06:
 - Andrey Rybalchenko, EPFL, Lausanne: Termination Proofs for Systems Code;
 - Robin Milner, Cambridge, UK (a joint EXPRESS-INFINITY-SOS invited lecture): Bigraphs, Multi-local Names and Confluence;
 - Mahesh Viswanathan, Urbana-Champaign, Illinois, USA: Learning to Verify;
- Infinity'07:
 - Luke Ong, Oxford University, UK: Verification of Infinite Structures: a Semantic Approach;
 - Vineet Kahlon, NEC Labs, USA: Towards Tractability of Dataflow Analysis for Concurrent Programs;

- Infinity'08:
 - Shaz Qadeer, Microsoft Research, Redmond, WA, USA: HAVOC: A Precise and Scalable Verifier for Systems Code;
 - Paolo Baldan, University of Padova, Italy: Verification of Graph Transformation Systems;
 - Dietmar Berwanger, RWTH Aachen, Germany: Coordinating Controllers.

The preliminary version of the papers accepted for INFINITY'08 appeared as the Technical Report No. FIT-TR-2008-006 of FIT, Brno University of Technology (ISBN 978-80-214-3697-8).

The papers in this volume are presented in alphabetical order according to the first author's last name, with those from INFINITY 06 occurring first, then those from INFINITY 07, and finally the papers from INFINITY 08.

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P. Habermehl
T. Vojnar